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TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 "Ask CAS" for self-help around the clock  
NEWS 3 SEP 09 ACD predicted properties enhanced in REGISTRY/ZREGISTRY  
NEWS 4 OCT 03 MATHDI removed from STN  
NEWS 5 OCT 04 CA/Caplus-Canadian Intellectual Property Office (CIPO) added  
to core patent offices  
NEWS 6 OCT 13 New CAS Information Use Policies Effective October 17, 2005  
NEWS 7 OCT 17 STN(R) AnaVist(TM), Version 1.01, allows the export/download  
of Caplus documents for use in third-party analysis and  
visualization tools  
NEWS 8 OCT 27 Free KWIC format extended in full-text databases  
NEWS 9 OCT 27 DIOGENES content streamlined  
NEWS 10 OCT 27 EPFULL enhanced with additional content  
NEWS 11 NOV 14 CA/Caplus - Expanded coverage of German academic research  
NEWS 12 NOV 30 REGISTRY/ZREGISTRY on STN(R) enhanced with experimental  
spectral property data  
NEWS 13 DEC 05 CASREACT(R) - Over 10 million reactions available  
NEWS 14 DEC 14 2006 MeSH terms loaded in MEDLINE/LMEDLINE  
NEWS 15 DEC 14 2006 MeSH terms loaded for MEDLINE file segment of TOXCENTER  
NEWS 16 DEC 14 CA/Caplus to be enhanced with updated IPC codes  
NEWS 17 DEC 16 MARPATprev will be removed from STN on December 31, 2005  
NEWS 18 DEC 21 IPC search and display fields enhanced in CA/Caplus with the  
IPC reform  
NEWS 19 DEC 23 New IPC8 SEARCH, DISPLAY, and SELECT fields in USPATFULL/USPAT2  
  
NEWS EXPRESS JANUARY 03 CURRENT VERSION FOR WINDOWS IS V8.01,  
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.  
V8.0 USERS CAN OBTAIN THE UPGRADE TO V8.01 AT  
<http://download.cas.org/express/v8.0-Discover/>  
  
NEWS DCOST SINCE APPROXIMATELY 20:00 COLUMBUS TIME DECEMBER 29,  
SOME ONLINE COST DISPLAYS HAVE BEEN SHOWING COSTS IN  
2006 PRICES FOR STN COLUMBUS FILES. THIS HAS BEEN  
CORRECTED. PLEASE BE ASSURED THAT YOU WILL BE BILLED  
ACCORDING TO 2005 PRICES UNTIL JAN 1. PLEASE CONTACT  
YOUR LOCAL HELP DESK IF YOU HAVE ANY QUESTIONS. WE  
APOLOGIZE FOR THE ERROR.  
  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS INTER General Internet Information  
NEWS LOGIN Welcome Banner and News Items  
NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that  
specific topic.

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\*\*\*\*\* STN Columbus \*\*\*\*\*

FILE 'HOME' ENTERED AT 17:25:56 ON 10 JAN 2006

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 17:26:05 ON 10 JAN 2006

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 9 JAN 2006 HIGHEST RN 871542-42-6

DICTIONARY FILE UPDATES: 9 JAN 2006 HIGHEST RN 871542-42-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

\*\*\*\*\*  
\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> e naphthalene dicarboxylic acid/cn

E1	1	NAPHTHALENE DEGRADATION REGULATOR PROTEIN SEQUENCE HOMOLOG ( RHODOCOCCLUS STRAIN P400 GENE NARR1)/CN
E2	1	NAPHTHALENE DEGRADATION REGULATOR PROTEIN SEQUENCE HOMOLOG ( RHODOCOCCLUS STRAIN P400 GENE NARR2)/CN
E3	0 -->	NAPHTHALENE DICARBOXYLIC ACID/CN
E4	1	NAPHTHALENE DICATION/CN
E5	1	NAPHTHALENE DIHYDRODIOL DEHYDROGENASE/CN
E6	1	NAPHTHALENE DIISOCYANATE/CN
E7	1	NAPHTHALENE DIISOCYANATE HOMOPOLYMER/CN
E8	1	NAPHTHALENE DIISOCYANATE-POLYETHYLENE PROPYLENE GLYCOL 1,4-B IS (2-HYDROXYETHOXY) BENZENE ETHER COPOLYMER/CN

E9 1 NAPHTHALENE DIISOCYANATE-PROPYLENE GLYCOL COPOLYMER/CN  
 E10 1 NAPHTHALENE DIISOCYANATE-PROPYLENE GLYCOL COPOLYMER SRU/CN  
 E11 1 NAPHTHALENE DIISOCYANATE-PTMG COPOLYMER/CN  
 E12 1 NAPHTHALENE DIMER/CN

=> e naphthalene dicarboxylic acid/cn

E1 1 NAPHTHALENE DEGRADATION REGULATOR PROTEIN SEQUENCE HOMOLOG ( RHODOCOCCLUS STRAIN P400 GENE NARR1)/CN  
 E2 1 NAPHTHALENE DEGRADATION REGULATOR PROTEIN SEQUENCE HOMOLOG ( RHODOCOCCLUS STRAIN P400 GENE NARR2)/CN  
 E3 0 --> NAPHTHALENE DICARBOXYLIC ACID/CN  
 E4 1 NAPHTHALENE DICATION/CN  
 E5 1 NAPHTHALENE DIHYDRODIOL DEHYDROGENASE/CN  
 E6 1 NAPHTHALENE DIISOCYANATE/CN  
 E7 1 NAPHTHALENE DIISOCYANATE HOMOPOLYMER/CN  
 E8 1 NAPHTHALENE DIISOCYANATE-POLYETHYLENE PROPYLENE GLYCOL 1,4-B IS(2-HYDROXYETHOXY)BENZENE ETHER COPOLYMER/CN  
 E9 1 NAPHTHALENE DIISOCYANATE-PROPYLENE GLYCOL COPOLYMER/CN  
 E10 1 NAPHTHALENE DIISOCYANATE-PROPYLENE GLYCOL COPOLYMER SRU/CN  
 E11 1 NAPHTHALENE DIISOCYANATE-PTMG COPOLYMER/CN  
 E12 1 NAPHTHALENE DIMER/CN

=> s naphthalene dicarboxylic acid

380625 NAPHTHALENE  
 295936 DICARBOXYLIC  
 7429454 ACID  
 8873 ACIDS  
 7436075 ACID

(ACID OR ACIDS)

L1 7713 NAPHTHALENE DICARBOXYLIC ACID  
 (NAPHTHALENE(W)DICARBOXYLIC(W)ACID)

=> d l1

L1 ANSWER 1 OF 7713 REGISTRY COPYRIGHT 2006 ACS on STN

RN 871210-01-4 REGISTRY \*

\* Use of this CAS Registry Number alone as a search term in other STN files may result in incomplete search results. For additional information, enter HELP RN\* at an online arrow prompt (=>).

ED Entered STN: 05 Jan 2006

CN Rubber, synthetic, butanediol-naphthalenedicarboxylic acid-polytetramethylene glycol, block (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Polyester rubber, butanediol-naphthalenedicarboxylic acid-polytetramethylene glycol, block

OTHER NAMES:

CN Block butanediol-naphthalenedicarboxylic acid-polytetramethylene glycol rubber

CN Butanediol-naphthalenedicarboxylic acid-polytetramethylene glycol, block rubber

CN EN 1000

CN L 4310AN

CN Nouvelan L 4310AN

CN Pelprene EN 1000

MF Unspecified

CI MAN, CTS

SR CA

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE  
ENTRY

TOTAL  
SESSION

FULL ESTIMATED COST

17.50

17.71

FILE 'CAPLUS' ENTERED AT 17:28:07 ON 10 JAN 2006  
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FILE COVERS 1907 - 10 Jan 2006 VOL 144 ISS 3  
FILE LAST UPDATED: 9 Jan 2006 (20060109/ED)

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<http://www.cas.org/infopolicy.html>

```
=> s 871210-01-4/prep
      0 871210-01-4
      3407251 PREP/RL
L2      0 871210-01-4/PREP
      (871210-01-4 (L) PREP/RL)
```

```
=> s 871210-01-4
    REGISTRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.
```

L4            0 L3

=> file caplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	2.41	24.92

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FILE COVERS 1907 - 10 Jan 2006 VOL 144 ISS 3  
FILE LAST UPDATED: 9 Jan 2006 (20060109/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.  
They are available for your review at:

<http://www.cas.org/infopolicy.html>

```
=> s 871210-01-4/prep
      0 871210-01-4
      3407251 PREP/RL
L5      0 871210-01-4/PREP
          (871210-01-4 (L) PREP/RL)
```

```
=> s 871210-01-4
    REGISTRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.
```

```
L7      0 L6
```

```
=> d his
```

```
(FILE 'HOME' ENTERED AT 17:25:56 ON 10 JAN 2006)
```

```
FILE 'REGISTRY' ENTERED AT 17:26:05 ON 10 JAN 2006
      E NAPHTHALENE DICARBOXYLIC ACID/CN
      E NAPHTHALENE DICARBOXYLIC ACID/CN
L1      7713 S NAPHTHALENE DICARBOXYLIC ACID
```

```
FILE 'CAPLUS' ENTERED AT 17:28:07 ON 10 JAN 2006
L2      0 S 871210-01-4/PREP
          S 871210-01-4/REG#
```

```
FILE 'REGISTRY' ENTERED AT 17:28:44 ON 10 JAN 2006
L3      1 S 871210-01-4/RN
```

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FILE 'CAPLUS' ENTERED AT 17:28:44 ON 10 JAN 2006
L4      0 S L3
```

```
FILE 'CAPLUS' ENTERED AT 17:29:06 ON 10 JAN 2006
L5      0 S 871210-01-4/PREP
          S 871210-01-4/REG#
```

```
FILE 'REGISTRY' ENTERED AT 17:29:30 ON 10 JAN 2006
L6      1 S 871210-01-4/RN
```

```
FILE 'CAPLUS' ENTERED AT 17:29:30 ON 10 JAN 2006
L7      0 S L6
```

```
=> s l1
L8      13989 L1
```

```
=> s l8 and dimethylnaphthalene (l) (oxygen or air)
      3744 DIMETHYLNAPHTHALENE
      553 DIMETHYLNAPHTHALENES
```

3943 DIMETHYLNAPHTHALENE  
(DIMETHYLNAPHTHALENE OR DIMETHYLNAPHTHALENES)  
703721 OXYGEN  
6714 OXYGENS  
708408 OXYGEN  
(OXYGEN OR OXYGENS)  
911308 AIR  
277 AIRS  
911436 AIR  
(AIR OR AIRS)  
234 DIMETHYLNAPHTHALENE (L) (OXYGEN OR AIR)  
L9 59 L8 AND DIMETHYLNAPHTHALENE (L) (OXYGEN OR AIR)

=> s l9 and cobalt and manganese  
361812 COBALT  
95 COBALTS  
361815 COBALT  
(COBALT OR COBALTS)  
348076 MANGANESE  
109 MANGANESES  
348086 MANGANESE  
(MANGANESE OR MANGANESES)  
L10 32 L9 AND COBALT AND MANGANESE

=> s l10 and bromine  
50267 BROMINE  
162 BROMINES  
50365 BROMINE  
(BROMINE OR BROMINES)  
L11 17 L10 AND BROMINE

=> s l11 and solvent  
650084 SOLVENT  
319547 SOLVENTS  
816207 SOLVENT  
(SOLVENT OR SOLVENTS)  
L12 12 L11 AND SOLVENT

=> s l11 and acetic acid  
218959 ACETIC  
22 ACETICS  
218968 ACETIC  
(ACETIC OR ACETICS)  
4083799 ACID  
1506026 ACIDS  
4569502 ACID  
(ACID OR ACIDS)  
192581 ACETIC ACID  
(ACETIC(W)ACID)  
L13 9 L11 AND ACETIC ACID

=> d l13 ibib ab 1-9

L13 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2004:143223 CAPLUS  
DOCUMENT NUMBER: 140:181971  
TITLE: Preparation method of naphthalene dicarboxylic acid  
INVENTOR(S): Lee, Jong-in; Kim, Han-seok; Kim, Byung-hee; Roh,  
Hang-duk; Lee, Youn-seo; Jo, Joon-sang  
PATENT ASSIGNEE(S): SK Chemicals Co., Ltd., S. Korea  
SOURCE: PCT Int. Appl., 27 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004015003	A2	20040219	WO 2003-KR883	20030502
WO 2004015003	A3	20040715		
W: JP, US				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
EP 1542959	A2	20050622	EP 2003-719253	20030502
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
JP 2005535703	T2	20051124	JP 2004-527406	20030502
PRIORITY APPLN. INFO.:			KR 2002-46765	A 20020808
			WO 2003-KR883	W 20030502

AB The present invention relates to a method for the preparation of naphthalene dicarboxylic acid, and more particularly, to a method for the preparation of naphthalene dicarboxylic acid by oxidizing dimethylnaphthalene with oxygen in air in the presence of acetic acid solvent using the metal catalysts of cobalt and manganese, and using bromine as a reaction initiator, wherein the temperature of said oxidation reaction is 155-180°. The method for the preparation of naphthalene dicarboxylic acid of the invention enables the preparation of naphthalene dicarboxylic acid having high purity with a high yield in an economical way at a low temperature

L13 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:793550 CAPLUS

DOCUMENT NUMBER: 139:278252

TITLE: Process for manufacturing 1,4-naphthalenedicarboxylic acid

INVENTOR(S): Suga, Hiroshi; Honma, Hirotooshi; Sugiura, Kazuki

PATENT ASSIGNEE(S): Sumikin Air Water Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003286221	A2	20031010	JP 2002-94873	20020329
PRIORITY APPLN. INFO.:			JP 2002-94873	20020329
OTHER SOURCE(S):		CASREACT 139:278252		

AB In the process for manufacturing 1,4-naphthalenedicarboxylic acid (I) by oxidizing 1,4-dialkylnaphthalene by mol. oxygen in a lower aliphatic carboxylic acid solvent containing catalysts comprising transition metal compds. and bromine compds., the oxygen-containing gas is supplied so that the oxygen/starting material mol ratio is 3.1 to 3.5 and the concentration of oxygen in the exhaust gas is  $\leq 2\%$ . The title process gives highly pure I.

L13 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:221639 CAPLUS

DOCUMENT NUMBER: 138:254967

TITLE: Liquid-phase oxidation process and catalyst system for the preparation of 2,6-naphthalenedicarboxylic acid from 2,6-dimethylnaphthalene

INVENTOR(S): Castiglioni, Gian Luca; Fumagalli, Carlo; Pirola, Roberto

PATENT ASSIGNEE(S): Lonza S.p.A., Italy

SOURCE: PCT Int. Appl., 15 pp.

DOCUMENT TYPE: CODEN: PIXXD2  
LANGUAGE: Patent  
FAMILY ACC. NUM. COUNT: English  
PATENT INFORMATION: 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003022791	A1	20030320	WO 2002-EP10002	20020906
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1291338	A1	20030312	EP 2001-830573	20010907
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
EP 1427690	A1	20040616	EP 2002-797956	20020906
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK			
CN 1551865	A	20041201	CN 2002-817326	20020906
JP 2005502694	T2	20050127	JP 2003-526869	20020906
US 2004210084	A1	20041021	US 2004-488691	20040305
PRIORITY APPLN. INFO.:			EP 2001-830573	A 20010907
			WO 2002-EP10002	W 20020906

OTHER SOURCE(S): CASREACT 138:254967

AB 2,6-Naphthalenedicarboxylic acid, useful as a polyester monomer (no data), is prepared by the liquid-phase oxidation of 2,6-dimethylnaphthalene in an aliphatic carboxylic acid-acidic solution in the presence of a cobalt-manganese-bromine catalyst (e.g., a cobalt acetate-manganese acetate-ammonium bromide mixture) with an oxygen-containing feed gas (e.g., air) being introduced into the reaction zone such that the oxygen content in the dry exhaust gas is  $\leq 1$  volume%.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:244621 CAPLUS

DOCUMENT NUMBER: 130:297087

TITLE: Catalytic production of 2,6-naphthalenedicarboxylic acid

INVENTOR(S): Sumner, Charles Edwan, Jr.; Arnold, Ernest William, III

PATENT ASSIGNEE(S): Eastman Chemical Company, USA

SOURCE: PCT Int. Appl., 17 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9918059	A1	19990415	WO 1998-US19802	19980922
W:	JP			
RW:	AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE			



## PRIORITY APPLN. INFO.:

US 1997-60915P

P 19971003

US 1998-100556

A 19980619

AB 2,6-Naphthalenedicarboxylic acid (NDA) is manufactured by the liquid-phase oxidation

of 2,6-dimethylnaphthalene with a mol. oxygen-containing gas in the presence of a catalyst system comprising Co 1000-3000, Mn 500-3000, and Br 500-2500 ppm and a solvent/reaction medium comprising acetic acid containing  $\geq 15$  weight% water at 150-220° and 8-23 bar absolute pressure. The use of  $\geq 15$  weight% water produces a crude NDA that contains relatively small amts. of residual catalyst metals in comparison to crude NDA produced by similar processes known in the art. In addition, the process results in a lower amount of the acetic acid solvent/reaction medium being oxidized (decomposed) during the oxidation process.

REFERENCE COUNT:

4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:33367 CAPLUS

DOCUMENT NUMBER: 120:33367

TITLE: Method for purifying a naphthalenedicarboxylic acid

INVENTOR(S): Sikkenga, David L.; Hoover, Stephen V.

PATENT ASSIGNEE(S): Amoco Corp., USA

SOURCE: U.S., 10 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5256817	A	19931026	US 1992-900618	19920618
WO 9400413	A1	19940106	WO 1993-US5786	19930616
W: AU, BG, BR, CA, HU, JP, KR, NO, RO, RU				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9346382	A1	19940124	AU 1993-46382	19930616
EP 601177	A1	19940615	EP 1993-916582	19930616
EP 601177	B1	19970917		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
JP 06509823	T2	19941102	JP 1993-502445	19930616
AT 158272	E	19971015	AT 1993-916582	19930616
ES 2110619	T3	19980216	ES 1993-916582	19930616
RU 2128641	C1	19990410	RU 1994-21689	19930616

PRIORITY APPLN. INFO.:

US 1992-900593

A 19920618

US 1992-900618

A 19920618

US 1992-900637

A 19920618

WO 1993-US5786

A 19930616

AB A naphthalenedicarboxylic acid is purified by contacting the impure acid with H in the presence of a hydrogenation catalyst and a solvent comprising a low mol. weight carboxylic acid, at .gtorsim.500°F and a pressure sufficient to maintain the solvent at least partially in the liquid phase and then recovering the purified naphthalenedicarboxylic acid.

L13 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1993:603180 CAPLUS

DOCUMENT NUMBER: 119:203180

TITLE: Preparation of naphthalenedicarboxylic acid esters from dialkylnaphthalenes

INVENTOR(S): Shimora, Yasuhiro; Yoshida, Mutsumi

PATENT ASSIGNEE(S): Shinnittetsu Kagaku, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05163206	A2	19930629	JP 1991-351773	19911216
PRIORITY APPLN. INFO.:			JP 1991-351773	19911216

OTHER SOURCE(S): CASREACT 119:203180

AB Naphthalenedicarboxylic acid esters are prepared by oxidation of dialkyl naphthalenes or their oxidized derivs. by mol. O-containing gases in solns. comprising lower fatty acid-containing solvents and catalysts containing Mn and/or Co and Br followed by esterification of the heavy metal-containing naphthalenedicarboxylic acid (I) with alcs. in presence of aromatic sulfonic acid catalysts and mineral acids. 2,6-Diethylnaphthalene was added to an AcOH solution containing Co acetate, Mn acetate, and NaBr under air supplying at 20 kg/cm<sup>2</sup> G and 190° over 2 h to give 92% crude 2,6-I, which was esterified with MeOH in presence of p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H and H<sub>2</sub>SO<sub>4</sub> at 160° for 2 h to give 96.3% 2,6-I di-Me ester.

L13 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1993:495156 CAPLUS  
DOCUMENT NUMBER: 119:95156  
TITLE: Preparation of 2,7-naphthalenedicarboxylic acid from dialkyl naphthalenes  
INVENTOR(S): Koide, Shunichi; Nakamura, Kazumoto; Yamauchi, Toshio  
PATENT ASSIGNEE(S): Petroleum Energy Center Found, Japan; Showa Shell Sekiyu  
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05070399	A2	19930323	JP 1991-261128	19910912
PRIORITY APPLN. INFO.:			JP 1991-261128	19910912

OTHER SOURCE(S): CASREACT 119:95156

AB 2,7-Naphthalenedicarboxylic acid (I) is prepared by oxidation of 2,7-di(lower alkyl)naphthalenes by mol. O in carboxylic acid solvents in presence of catalysts comprising Co salts, Mn salts, and Br compds. 2,7-Dimethylnaphthalene, Co(OAc)·2.4H<sub>2</sub>O, Mn(OAc)·2.4H<sub>2</sub>O, NH<sub>4</sub>Br, and AcOH were stirred under air at 180° and 20 kgf/cm<sup>2</sup>G for 1 h to give 81% I.

L13 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1993:212677 CAPLUS  
DOCUMENT NUMBER: 118:212677  
TITLE: Process for preparing 2,6-naphthalene-dicarboxylic acid  
INVENTOR(S): Harper, Jon J.; Kuhlmann, George E.; Larson, Keith D.; McMahon, Rosemary F.; Sanchez, Paul A.  
PATENT ASSIGNEE(S): Amoco Corp., USA  
SOURCE: U.S., 13 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5183933	A	19930202	US 1991-776812	19911015
CA 2098485	AA	19930416	CA 1992-2098485	19921014
CA 2098485	C	20050125		
WO 9308151	A1	19930429	WO 1992-US8974	19921014
W: CA, JP, KR				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE				
EP 562105	A1	19930929	EP 1992-923188	19921014
EP 562105	B1	20000426		
R: BE, DE, ES, FR, GB, IT, NL				
JP 06503586	T2	19940421	JP 1993-507894	19921014
JP 3390169	B2	20030324		
ES 2145749	T3	20000716	ES 1992-923188	19921014
SG 94682	A1	20030318	SG 1996-3850	19921014
PRIORITY APPLN. INFO.:			US 1991-776812	A 19911015
			WO 1992-US8974	W 19921014

AB A process for the preparation of 2,6-naphthalenedicarboxylic acid is claimed which comprises the oxidation of 2,6-dimethylnaphthalene in the presence of mol. oxygen and a carboxylic acid as a solvent and a catalyst containing cobalt, manganese and bromine. The 2,6-naphthalenedicarboxylic acid thus prepared is suitable as starting material for the preparation of polyethylene 2,6-naphthalate. A process for catalyst recovery is also claimed. Oxygen was pumped into a continuous (steady state) oxidation reactor charged with cobalt diacetate tetrahydrate and manganese diacetate tetrahydrate and aqueous HBr and acetic acid (solvent) and a 2,6-dimethylnaphthalene feed (98.5% pure) was charged to the reactor; a 81.98% molar yield of 2,6-naphthalenedicarboxylic acid was obtained. The catalyst-containing mother liquor was recycled.

L13 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1988:454451 CAPLUS

DOCUMENT NUMBER: 109:54451

TITLE: Autoxidation of 2,6-dimethylnaphthalene catalyzed by cobalt-manganese-bromine catalyst in acetic acid

AUTHOR(S): Kamiya, Yoshio; Taguchi, Toshiki; Futamura, Shigeru

CORPORATE SOURCE: Fac. Eng., Univ. Tokyo, Tokyo, 113, Japan

SOURCE: Nippon Kagaku Kaishi (1987), (10), 1772-8  
CODEN: NKAKB8; ISSN: 0369-4577

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

OTHER SOURCE(S): CASREACT 109:54451

AB The effects of some reaction conditions on the autoxidn. of 2,6-dimethylnaphthalene catalyzed by cobalt-manganese-bromide ions in acetic acid were studied at 65-200°. The oxidation of each Me substituent proceeded one after another to carboxylic acid via aldehyde by successive reaction. The conversion of substrate was remarkably decreased with increasing substrate concentration, suggesting that the presence of naphthalene ring retarded the oxidation reaction. It was also observed that the rate of oxidation was gradually decreased as the bromide ion was converted to the inactive form of organic bromide. Although Me substituents on naphthalene ring can be oxidized faster than those on benzene ring, the overall oxidation of 2,6-dimethylnaphthalene proceeded rather slowly at 90°, because of some retardation effects above mentioned and low solubility of formylnaphthoic acid in acetic acid. However, the oxidation of substrate to 2,6-naphthalenedicarboxylic acid proceeded smoothly at 150° under oxygen pressure of 10 bar, resulting in a good yield as high as 85%.

=> d his

(FILE 'HOME' ENTERED AT 17:25:56 ON 10 JAN 2006)

FILE 'REGISTRY' ENTERED AT 17:26:05 ON 10 JAN 2006

E NAPHTHALENE DICARBOXYLIC ACID/CN

E NAPHTHALENE DICARBOXYLIC ACID/CN

L1 7713 S NAPHTHALENE DICARBOXYLIC ACID

FILE 'CAPLUS' ENTERED AT 17:28:07 ON 10 JAN 2006

L2 0 S 871210-01-4/PREP

S 871210-01-4/REG#

FILE 'REGISTRY' ENTERED AT 17:28:44 ON 10 JAN 2006

L3 1 S 871210-01-4/RN

FILE 'CAPLUS' ENTERED AT 17:28:44 ON 10 JAN 2006

L4 0 S L3

FILE 'CAPLUS' ENTERED AT 17:29:06 ON 10 JAN 2006

L5 0 S 871210-01-4/PREP

S 871210-01-4/REG#

FILE 'REGISTRY' ENTERED AT 17:29:30 ON 10 JAN 2006

L6 1 S 871210-01-4/RN

FILE 'CAPLUS' ENTERED AT 17:29:30 ON 10 JAN 2006

L7 0 S L6

L8 13989 S L1

L9 59 S L8 AND DIMETHYLNAPHTHALENE (L) (OXYGEN OR AIR)

L10 32 S L9 AND COBALT AND MANGANESE

L11 17 S L10 AND BROMINE

L12 12 S L11 AND SOLVENT

L13 9 S L11 AND ACETIC ACID

=> s l13 and dicarboxylic acid

61818 DICARBOXYLIC

12 DICARBOXYLICS

61820 DICARBOXYLIC

(DICARBOXYLIC OR DICARBOXYLICS)

4083799 ACID

1506026 ACIDS

4569502 ACID

(ACID OR ACIDS)

53506 DICARBOXYLIC ACID

(DICARBOXYLIC(W)ACID)

L14 2 L13 AND DICARBOXYLIC ACID

=> d l14 ibib ab 1-2

L14 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:143223 CAPLUS

DOCUMENT NUMBER: 140:181971

TITLE: Preparation method of naphthalene dicarboxylic acid

INVENTOR(S): Lee, Jong-in; Kim, Han-seok; Kim, Byung-hee; Roh, Hang-duk; Lee, Youn-seo; Jo, Joon-sang

PATENT ASSIGNEE(S): SK Chemicals Co., Ltd., S. Korea

SOURCE: PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004015003	A2	20040219	WO 2003-KR883	20030502
WO 2004015003	A3	20040715		
W: JP, US				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
EP 1542959	A2	20050622	EP 2003-719253	20030502
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
JP 2005535703	T2	20051124	JP 2004-527406	20030502
PRIORITY APPLN. INFO.:			KR 2002-46765	A 20020808
			WO 2003-KR883	W 20030502

AB The present invention relates to a method for the preparation of naphthalene dicarboxylic acid, and more particularly, to a method for the preparation of naphthalene dicarboxylic acid by oxidizing dimethylnaphthalene with oxygen in air in the presence of acetic acid solvent using the metal catalysts of cobalt and manganese, and using bromine as a reaction initiator, wherein the temperature of said oxidation reaction is 155-180°. The method for the preparation of naphthalene dicarboxylic acid of the invention enables the preparation of naphthalene dicarboxylic acid having high purity with a high yield in an economical way at a low temperature

L14 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1993:212677 CAPLUS

DOCUMENT NUMBER: 118:212677

TITLE: Process for preparing 2,6-naphthalene-dicarboxylic acid

INVENTOR(S): Harper, Jon J.; Kuhlmann, George E.; Larson, Keith D.; McMahon, Rosemary F.; Sanchez, Paul A.

PATENT ASSIGNEE(S): Amoco Corp., USA

SOURCE: U.S., 13 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5183933	A	19930202	US 1991-776812	19911015
CA 2098485	AA	19930416	CA 1992-2098485	19921014
CA 2098485	C	20050125		
WO 9308151	A1	19930429	WO 1992-US8974	19921014
W: CA, JP, KR				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE				
EP 562105	A1	19930929	EP 1992-923188	19921014
EP 562105	B1	20000426		
R: BE, DE, ES, FR, GB, IT, NL				
JP 06503586	T2	19940421	JP 1993-507894	19921014
JP 3390169	B2	20030324		
ES 2145749	T3	20000716	ES 1992-923188	19921014
SG 94682	A1	20030318	SG 1996-3850	19921014
PRIORITY APPLN. INFO.:			US 1991-776812	A 19911015
			WO 1992-US8974	W 19921014

AB A process for the preparation of 2,6-naphthalenedicarboxylic acid is claimed which comprises the oxidation of 2,6-dimethylnaphthalene in the presence of mol. oxygen and a carboxylic acid as a solvent and a catalyst containing cobalt, manganese and bromine. The 2,6-naphthalenedicarboxylic acid thus prepared is suitable as starting material for the preparation of polyethylene 2,6-naphthalate. A

process for catalyst recovery is also claimed. Oxygen was pumped into a continuous (steady state) oxidation reactor charged with cobalt diacetate tetrahydrate and manganese diacetate tetrahydrate and aqueous HBr and acetic acid (solvent) and a 2,6-dimethylnaphthalene feed (98.5% pure) was charged to the reactor; a 81.98% molar yield of 2,6-naphthalenedicarboxylic acid was obtained. The catalyst-containing mother liquor was recycled.